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Prodn. of hybrid protein comprising mature human serum albumin - having  
trypsin cleavable hydrophilic extension, by growing E. coli cells  
transformed with new inducible plasmid

Patent Assignee: GENETICA (GENE-N)

Inventor: LATTA M; MAYAUX J F; SARMIENTOS P; MAYAUX J

Number of Countries: 013 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 236210	A	19870909	EP 87400355	A	19870219	198736 B
FR 2594846	A	19870828	FR 862379	A	19860221	198745
JP 62275695	A	19871130	JP 8737683	A	19870220	198802
EP 236210	B	19911023				199143
DE 3773963	G	19911128				199149
US 5100784	A	19920331	US 8716651	A	19870219	199216
US 5187261	A	19930216	US 8716651	A	19870219	199309
			US 91653195	A	19910208	

Priority Applications (No Type Date): FR 862379 A 19860221

Cited Patents: EP 138437; EP 200590; 1.Jnl.Ref; EP 114506; EP 1929; EP  
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Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 236210	A	F	55		
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
EP 236210	B				
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
US 5100784	A		36		
US 5187261	A		36	C07K-015/02	Div ex application US 8716651 Div ex patent US 5100784

Abstract (Basic): EP 236210 A

Prodn. of hybrid protein (A), contg. a hydrophilic, N-terminal  
peptide extension terminated by a trypsin cleavage site, fused to the  
mature human serum albumin (HSA) sequence, comprises cultivating a  
strain of E. coli able to retain a plasmid which contains the  
nucleotide sequence coding for (A), the expression of which is  
controlled by an inducible bacterial promoter. Also new are (1) the  
plasmids pXL462; pXL641; pXL740 and pXL741 and (2) hybrid proteins  
expressed by these plasmids.

pXL462 contains the PL promoter; the ribosome-binding site (RBS) of  
the gene cII of lambda phage (lacking the trl transcription termination  
site); ATG start codon and the first 6 codons of the cII gene. It  
produces an (A) having the N-terminal extension of formula  
(Met)-Val-Arg-Ala-Asr-Lys-Arg. pXL641 contains the Ptrp promoter  
followed by penicillin amidase (PA) promoter; the RBS of PA and the  
first 6 codons of the PA gene. It produces an (A) with N-terminal  
extension of formula Met-Lys-Asn-Arg-Asn-Arg. pXL740 and pXL741 are  
similar to pXL641 but the extension is modified by directed mutagenesis  
to Met-Lys-Asn-Arg-Lys-Arg or Met-Lys-Arg-Lys-Arg. The (A) formed is  
converted to denatured, insoluble form, then renatured and solubilised

to rearrange the sec. and tert. structures of the polypeptide chain.  
(A) is treated with trypsin to give a protein having a primary structure identical to HSA.

USE/ADVANTAGE - (A) can be converted into mature HSA.

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Title Terms: PRODUCE; HYBRID; PROTEIN; COMPRISE; MATURE; HUMAN; SERUM;  
ALBUMIN; TRYPSIN; CLEAVE; HYDROPHILIC; EXTEND; GROW; COLI; CELL;  
TRANSFORM; NEW; INDUCE; PLASMID

Derwent Class: B04; D16

International Patent Class (Main): C07K-015/02

International Patent Class (Additional): C07H-015/12; C07H-017/00;  
C07K-013/00; C07K-015/06; C12N-001/21; C12N-015/00; C12P-019/34;  
C12P-021/02; C12R-001/19

File Segment: CPI